POLREP No. 2

I. Heading

Date: October 31, 2000
Subject: Hackberry Pits
From: OSC Robert M. Ryan, P.E., U. S. EPA Region 6
To: Director, ERD
Charles A. Gazda, Chief, RPB, Region 6

II. Background

Site ID#: Z6FR
FPN: N00023
Response Authority: OPA
NPL Status: Non-NPL
State Notification: LOSCO, LDNR
Incident Category: Active
Action Memorandum Status: N/A

CERCLIS No.: N/A
Delivery Order No.: N/A
ERNS No.: N/A
Action Lead: Fund
Start Date: October 2, 2000
Completion Date: N/A

III. Situation Information:

A. Incident Category: Abandoned Oil Production Facility

1. Site Location

Facility 12-E-1001, identified as the Hackberry Pit No. 1, is located in the East Hackberry Oil Field, within the Pete Seay Circle Road (Rd) residential area of Hackberry, Cameron Parish, Louisiana. The pit is located approximately 400 feet (ft.) south of Black Lake Bayou and 0.5 miles west of the Calcasieu Ship Channel. The facility is mapped in the Moss Lake USGS 7.5-minute quadrangle, within Section 37, Township 12 South, Range 10 East. The geographic center of Pit 1 is at Latitude 30° 00' 12" North and Longitude 93° 20' 27" West. The facility is accessible by land only. To reach the site, travel 700 ft. south on Highway 27 from Black Lake Bayou and turn left onto Pete Seay Circle Rd. Travel approximately 1,000-ft. on the north side of Pete Seay Circle Rd. and the pit will be located approximately 40-ft. to the south.

The facility is comprised of a well and seven pits, identified as Pit 1 through Pit 7, that range in size between 23,300 and 39 square ft. All are located within an area of approximately 2-acres. Pit 1, the largest of the seven pits, is the only pit that can be observed from the Pete Seay Circle Rd. Pit 1 has no available freeboard and is encompassed by a clay berm measuring 112 ft. by 208 ft. that is 2 ft. taller than the surrounding landscape. The Pit is approximately 4 ft. 6 inches (in.) in depth to the natural clay bottom. A 6 in. water layer exists on the surface, while the remainder is a heavy sludge. Pit 2 is located approximately 15 ft. south of Pit 1 and measures 11 ft. by 11 ft. The pit is a square recession in the ground that has been lined with boards to

prevent cave-ins. Pit 2 is 2.5 ft. deep and is filled with 2 ft. of water. It is interconnected to both Pit 1 and Pit 4 via piping and valves. Approximately 10 ft. west of Pit 2 is Pit 3, which measures 11 ft. by 9 ft. and is also lined with boards. Pit 3 is 1.5 ft. deep and contains 1 ft. of water. Both Pit 2 and Pit 3 have approximately 6 in. of available freeboard. Pit 4 is located approximately 30 ft. south of Pit 3 and 60 ft. southwest of Pit 2 and measures 102 ft. by 21 ft. It is surrounded by a 1 ft. clay berm and has 2.5 ft. of available freeboard inside. Pit 4 is approximately 5 ft. deep from the top of the clay berm and contains 2.5 ft. of water. Pit 5 is adjacent to the east side of Pit 1 and shares a common clay berm. Pit 5 has 2.5 ft. of available freeboard and measures approximately 62 ft. by 194 ft. The Pit has approximately 1 ft. of water inside. East of Pit 5 is Pit 6. Both share a common clay berm for containment purposes. Pit 6 measures 87 ft. by 52 ft., is empty, and has a full 3 ft. of available freeboard to the top of the clay berm. Pit 7 is located approximately 10 ft. north of the northeast corner of Pit 1 and is interconnected to Pit 1 via pipe. It measures 6 ft. 3 in. square and is approximately 2.5 ft. deep, with 1.5 ft. of this depth containing water. Pit 7 is formed out of concrete and resembles a sump-like structure. The top of the concrete structure is approximately 1 foot taller than the surrounding landscape.

Approximately 20 to 25 wells are located within a 1,000-ft. radius of the facility, but only the Caldwell Well No. 8 (Serial No. 022320) has been linked to the facility by the Louisiana Department of Natural Resources (LDNR). According to records, the initial drilling and operation of this well were permitted to the Union Sulphur Company on March 31, 1939. The last known operator of the well was R-5, Incorporated, who acquired it on June 21, 1974. A summary of the status and type of well identified as associated with the facility is presented in the Well Status Table. Another well is located approximately 20 to 30 ft. south of Pit 5 and is connected to the pit via a pipeline. The well is rudimentarily plugged with a wooden block. LDNR has no known record of the initial drilling nor operation of this particular well.

Unit Petroleum, Incorporated currently operates tank batteries located both northwest and southeast of the pits that are not associated with this facility. The tank batteries appear to be out of service, and there are no indications of their association with the pits. Three active separators, also not believed to be associated with this facility, are located approximately 300-ft. to the east.

WELL STATUS TABLE
Hackberry Pit No. 1
Operator Code: 4912
April 1, 1999

LOSCO I.D. Number (1)	Serial Number	Well Name	Status (Based on LDNR Records)	Confirmation (2)
N/I	022320	CALDWELL WELL NO. 008	Orphan Wells (Oil)	CPO
N/I	UNKNOWN(3)	UNKNOWN (3)	UNKNOWN (3)	CPO

Note: (1) Refer to LDNR Records of Communication (ROC) and LOSCO field sheets for specific information on associated wells.
(2) Information in this column is based upon an interpretation of research data, LDNR records, and communication with field personnel by START for the purpose of justifying the association of the well to the facility.
(3) An unidentified well plugged with a wooden block located approximately 30 ft. south of Pit 5.

Key: CPO = Confirmed association via proximity to site and identical operators.
N/I = No information was available.

Source: Ecology and Environment, Inc., 1999.

CONTAINER STATUS TABLE
Hackberry Pit No. 1
12-E-1001
April 1, 1999

Container	Capacity (bbl)	Volume (bbl) (1)	Description of Contents	Radiation Monitoring/ Analytical Data (2)	Container Condition
Pit 1	20,700	18,280	Thin layer of water/heavy oil sludge underneath 4'-5" depth average	ND for radiation/ 46.17% oil & grease content [3]	Inadequate clay berm/ signs of prior breaching
Pit 2	54	43	Contains mostly water/ Sheen observed	ND for radiation/no analytical	Adequate condition/clay berm
Pit 3	26	17	Contains only water	ND for radiation/no analytical	Adequate condition/clay berm
Pit 4	1,900	952	Contains only water	ND for radiation/no analytical	Adequate condition/clay berm
Pit 5	8,020	1,480	Contains only water	ND for radiation/no analytical	Adequate condition/clay berm
Pit 6	2,410	0	No contents/dry pit	ND for radiation/no analytical	Adequate condition/clay berm
Pit 7	98	74	Contains only water	ND for radiation/no analytical	Adequate condition/clay berm
Total Volume =	33,208	20,846	**Total Volume of all Petroleum-Based Materials (3) =18,280 bbl**		

Note: (1) Contents may include oil/water mixture or produced water.
(3) "Total Volume of all Petroleum-Based Materials" excludes any contents described as water or sheen on water. This volume calculation is for use in the Threat Ranking Matrix Table.
(3) Analytical procured by LDNR. Analysis completed by Laboratory & Analytical Business Services, Inc. on July 21, 1999.

Key: bbl = Barrels.
NA = Unable to gauge contents.
ND = Non-detected above background levels.

Source: Ecology and Environment, Inc., 1999.

2. Description of Threat

The facility is situated 400 ft. south of Black Lake Bayou and 0.5 miles west of the Calcasieu River Ship Channel. The pits are located within the city limits of Hackberry Louisiana, and are surrounded by approximately 50 residences within a 1-mile radius of the Hackberry Pit No. 1. Approximately 300 ft. to the north and directly across the Pete Seay Circle Road from Pit 1 are a local boat launch, a bait & tackle store, and a seafood processing plant.

THREAT STATUS TABLE
Hackberry Pit No. 1
12-E-1001
April 1, 1999

Criteria (1)	Evaluated Specifications	Possible Points	Points
Volume	0 Bbl.	0	43
	1 Point per 23 bbl.	1-42	
	Greater than 1,000 bbl.	43	
Proximity to Waterways (2)	Isolated compound > 5,000 feet in distance.	0	11
	Points = [12 - (distance in ft/500 ft)] round to nearest whole number.	1-11	
	Over water.	12	
Container Condition	No rust, weeps, leaks, or cracks.	0	15
	Rusty, pitted, corroded, or cracked.	5	
	Top open or holed--Potential overflow from precipitation.	15	
	Product within secondary containment.	20	
	Weeping seeping or holed.	25	
Potential for Dumping	Hatches/containers welded or locked, or man ways removed.	0	8
	Hatches/containers accessible, proximal to roads or transportation.	1-7	
	Containers open, pits, and proximal to roads or transportation.	8	
Accessability to Wildlife and Persons	Security features or fences present, not proximal to persons.	0	12
	Limited security features, accessible to persons.	1-11	
	Open pits with oil.	12	
	Total =	**100**	89
Priority based on points:	None 0-20 Medium 41-60 Low 21-40 High 61-100		High

Note: (1) Qualitative interpretation prepared by START based on five criteria deemed most significant in evaluating a potential threat.
(2) For the purpose of threat evaluation, a waterway is defined as any perennial water body.
Key: bbl = Barrels.
Ft = Feet (US).
Source: Ecology and Environment, Inc., 1999.

The facility is considered a high threat due to the large volume of petroleum related product located within Pit 1. Since the underflow pipes are inoperable and the release of hydrocarbon pockets are continuing, an oil overflow from Pit 1 is occurring. A high number of residences are in close proximity to the pits and the pits pose both a chemical and physical hazard to children in this neighborhood. The local residents have expressed their concern in

signed petitions and letters written to LDNR.

B. Response Information

1. Current Situation

Following the Cameron Parish Police Jury meeting on October 13, 2000, a decision was made by EPA Region 6 and the U.S. Army Corps of Engineers (USACE) to begin removal activities at the Hackberry Pits on October 23, 2000. The USACE, under the guidance of the EPA Region 6, contracted IT to mobilize to the Hackberry Pits site on October 23, 2000, to initiate removal activities.

2. Removal Activities to Date:

During the week of October 21, 2000, a bulldozer, an excavator and two trailers were secured and mobilized to the Hackberry Pits site. The two trailers were set up in a field across Pete Seay Circle, west of Pit 1. The trailers will serve as a command post and evacuation area during removal activities.

During the week of October 28, 2000, the USACE, START, and IT mobilized to the Hackberry Pits site to initiate removal activities. The northern berm of Pit 1 was extended north 15- feet, and will be used as a loading pad for the excavator during sludge removal. An access road that intersects Pete Seay Circle at two points was constructed along the northern berm of Pit 1. A total of 35 loads of clay, 6 loads of limestone, and four 20-foot long, 1-foot diameter corrugated culverts were used to construct the road. Two 500-bbl frac tanks were staged in a cleared area west of Pit 1 (frac tank A and B). The contractor secured an exclusion zone around pit 1 by setting up safety fence from the northern berm of the pit to the tree lines located northeast and northwest of the pit. The tree line surrounding Pit 1 will act as a natural barrier for the exclusion zone. Approximately 300-gallons of water was pumped from Pit 2, located immediately south of Pit 1, before sludge clogged the end of the hose. The contractor had a 4-foot by 4-foot by 5-foot metal cage fabricated to act as a screen for the hose during pumping activities in the pits. The metal cage was inserted into the sludge on the west side of Pit 1, and approximately 15,000 gallons of water was pumped from the pit into frac tank A.

3. Enforcement:

A Letter of Federal Interest and Intent was sent to Mr. John Hogan, a representative of Auster Oil and Gas, Inc., a potentially responsible party for the Hackberry Pits. Auster Oil and Gas, Inc. has not claimed responsibility of the Hackberry Pits at this time.

4. Planned Removal Activities

Future activities include: the removal of the Pit 1 contents, disposal of the waste in a NOW approved facility, closure of Pit 1 in accordance with Statewide Order 29-B parameters, and the restoration of the original grade of the site.

5. Next Steps

Next steps include: the removal of the Pit 1 contents and disposal of the waste in a NOW approved facility.

IV. Key Issues:

None.

V. Cost Information

Cost breakdowns for the Federal Government personnel are not available at this time.

The following are estimated cost breakdowns for the Corps of Engineers Contractor, as of 10/29/00:

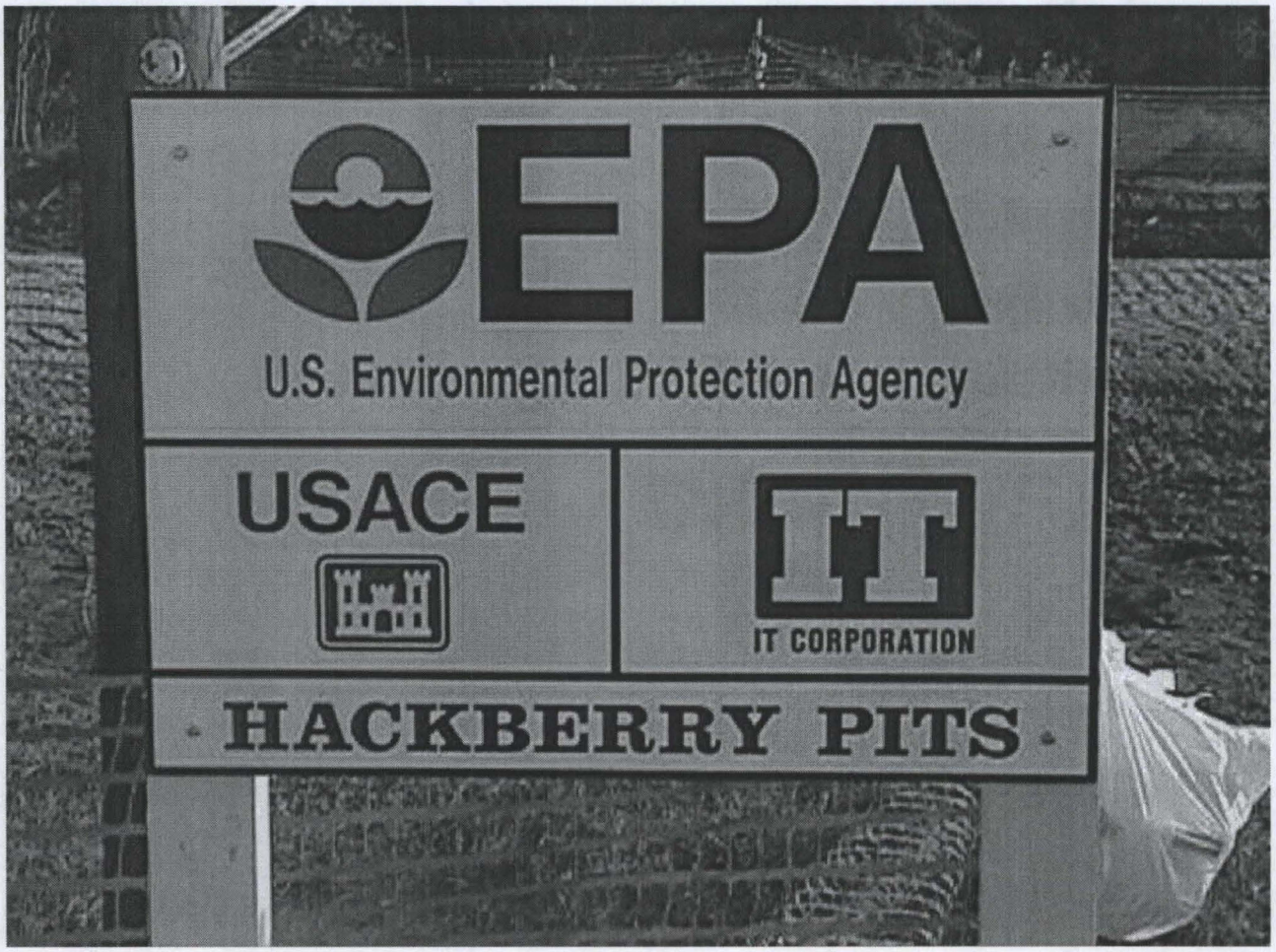
Personnel	$ 42,205
Equipment	7,983
Material	53,436
Subcontractor(s)	4,182
Total	$107,806

VI. Attachments:

Attached photographs include images associated with the removal of the Hackberry Pits. Attached photographs are in jpg format.

HackberryP2pic1.jpg	Hackberry Pits sign.
HackberryP2pic2.jpg	Access road constructed north of Pit 1.
HackberryP2pic3.jpg.	Pumping water from Pit 1.
HackberryP2pic4.jpg	Pumping water from Pit 1.

OSC: Robert M. Ryan, P.E.
START: Ben Evans


EPA
U.S. Environmental Protection Agency
USACE
IT CORPORATION
HACKBERRY PITS